

Periodic Table of the Elements

1	alkali metals	alkaline metals						
2	3 Li Lithium	4 Be Beryllium	5 B Boron	6 C Carbon	7 N Nitrogen	8 O Oxygen	9 F Fluorine	2 He Helium
3	11 Na Sodium	12 Mg Magnesium	13 Al Aluminum	14 Si Silicon	15 P Phosphorus	16 S Sulfur	17 Cl Chlorine	18 Ar Argon
4	19 K Potassium	20 Ca Calcium	31 Ga Gallium	32 Ge Germanium	33 As Arsenic	34 Se Selenium	35 Br Bromine	36 Kr Krypton
5	37 Rb Rubidium	38 Sr Strontium	49 In Indium	50 Sn Tin	51 Sb Antimony	52 Te Tellurium	53 I Iodine	54 Xe Xenon
6	55 Cs Cesium	56 Ba Barium	81 Tl Thallium	82 Pb Lead	83 Bi † Bismuth	84 Po † Polonium	85 At † Astatine	86 Rn † Radon
7	87 Fr † Francium	88 Ra † Radium	113Nh †! Nihonium	114Fl †! Flerovium	115Mc †! Moscovium	116Lv †! Livermorium	117Ts †! Tennessine	118Og †! Oganesson
	I	II	III	IV	V	VI	VII halogens except H	VIII noble gases

The d-Block: Transition Metals

21 Sc Scandium	22 Ti Titanium	23 V Vanadium	24 Cr Chromium	25 Mn Manganese	26 Fe Iron	27 Co Cobalt	28 Ni Nickel	29 Cu Copper	30 Zn Zinc
39 Y Yttrium	40 Zr Zirconium	41 Nb Niobium	42 Mo Molybdenum	43 Tc †! Technetium	44 Ru Ruthenium	45 Rh Rhodium	46 Pd Palladium	47 Ag Silver	48 Cd Cadmium
71 Lu Lutetium	72 Hf Hafnium	73 Ta Tantalum	74 W Tungsten	75 Re Rhenium	76 Os Osmium	77 Ir Iridium	78 Pt Platinum	79 Au Gold	80 Hg Mercury
103Lr †! um Lawrencium	104Rf †! Rutherfordium	105Db †! Dubnium	106Sg †! Seaborgium	107Bh †! Bohrium	108Hs †! Hassium	109Mt †! Meitnerium	110Ds †! Darmstadtium	111Rg †! Roentgenium	112Cn †! Copernic-
IIIB	IVB	VB	VIB	VIIB	VIIIB	VIIIB	IB	IIB	

The f-Block: Lanthanides and Actinides

57 La Lanthanum	58 Ce Cerium	59 Pr Praseodymum	60 Nd Neodymium	61 Pm †! Promethium	62 Sm Samarium	63 Eu Europium
89 Ac † Actinium	90 Th † Thorium	91 Pa † Protactinium	92 U † Uranium	93 Np †! Neptunium	94 Pu †! Plutonium	95 Am †! Americium

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above

64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium
96 Cm †! Curium	97 Bk †! Berkelium	98 Cf †! Californium	99 Es †! Einsteinium	100Fm †! Fermium	101Md †! Mendelevium	102No †! Nobelium